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09/472,383	12/23/1999	A. JOSEPH MUELLER	99.418	8664

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EXAMINER

NEURAUTER, GEORGE C

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 03/20/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/472,383

Applicant(s)

MUELLER ET AL.

Examiner

George C Neurauter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Terminal Disclaimer***

1. The terminal disclaimer filed on 15 January 2003 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent 6 396 912 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 6, 11, 15-16, 18-19, and 21-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Bell [US Patent 5 982 784 A].

Regarding claim 1, Bell discloses a network system providing a home network between at least a first customer premise device and a second customer premise device within a customer premise, the system comprising:

a first digital subscriber loop modem in communication with the first customer premise device; and a second digital subscriber loop modem in communication with the second customer premise device, the second and first digital subscriber loop modems in communication over a

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common wiring connection; and the first and second digital subscriber loop modems provide, over a frequency spectrum, a network connection between the first and second customer premise devices within the customer premise, the first and second digital subscriber loop modems providing the network connection when the frequency spectrum is under-utilized; wherein the home network accommodates DSL connections with a telephone company central office during home networking sessions; and wherein the DSL connections with the telephone company central office share the frequency spectrum used by the network connection between the first and second customer premise devices. [Figure 1; column 2, line 45-column 3, line 36; column 5, line 5-column 6, line 65]

Claims 21 and 25 are also rejected under 35 USC 102(e) since claims 21 and 25 contain the same limitations as recited in claims 21 and 25.

Regarding claim 2, Bell discloses the invention of claim 1 wherein the digital subscriber loop modems utilize a duplex communication channel between them. [column 4, line 59-column 5, line 4; column 5, lines 27-67]

Claim 23 is also rejected under 35 USC 102(e) since claim 23 contains the same limitations as recited in claim 2.

Regarding claim 3, Bell discloses the invention of claim 1 wherein the network connection between the first and second digital subscriber loop modems utilize a digital subscriber loop frequency spectrum to communicate between the first and second customer premise devices. [column 4, line 59-column 5, line 4]

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Regarding claim 6, Bell discloses the invention of claim 1 wherein home networking initiation and connection signaling does not invoke a DSL connection attempt. [column 8, line 63-column 9, line 10]

Regarding claim 11, Bell discloses the invention of claim 1 wherein timing normally provided by a central office modem is provided by the digital subscriber loop modems during the home networking session [column 5, lines 27-46; column 7, line 62-column 8, line 11]

Regarding claim 15, Bell discloses the invention of claim 1 wherein the digital subscriber loop modems provide an Asymmetric Digital Subscriber Loop System. [column 1, lines 35-56]

Regarding claim 16, Bell discloses the invention of claim 1 wherein the central office comprises a node on the network. [Figure 1, item 14]

Regarding claim 18, Bell discloses the invention of claim 1 wherein the first and second digital subscriber loop modems recognize initiation signals for a digital subscriber loop connection from a central office DSL modem. [column 5, lines 5-25]

Regarding claim 19, Bell discloses the invention of claim 1 wherein the first and second digital subscriber loop modems recognize initiation signals for a digital subscriber loop connection from a customer premise DSL modem. [column 5, lines 5-25]

Claim 24 is rejected under 35 USC 102(e) since claim 24 contains the same limitations as recited in claims 16 and 18 in combination.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 4-5 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell in view of Shively et al. [US Patent 6 144 696 A].

Regarding claim 4, Bell discloses the invention of claim 3.

Bell does not expressly disclose wherein the spectrum used for home networking is contained within a power spectral density mask used for the DSL connections, however, Shively discloses that this limitation is well known and used in the art [column 1, line 42-column 2, line 24]

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine these references in order to achieve the claimed invention.

Regarding claim 5, Bell discloses the invention of claim 3.

Bell does not expressly disclose wherein a portion of the spectrum used for home networking that corresponds to a DSL downstream spectrum is a function of received power in that spectrum measured during previous DSL connections, however Shively discloses that this limitation is well known and used in the art [column 1, line 42-column 2, line 51].

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Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine these references in order to achieve the claimed invention.

Regarding claim 20, Bell discloses the invention of claim 1.

Bell does not disclose wherein the first and second digital subscriber loop modems are restricted to transmit at a reduced transmission power level to accommodate digital subscriber loop connections with the central office, however, Shively discloses that these limitations are well known and used in the art [column 1, line 42-column 2, line 51].

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine these references in order to achieve the claimed invention.

1. Claims 7-10, 12-14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell in view of "Proposed Techniques for G.hs" by Matsushita Electric Industrial Co. Ltd. Of Japan (hereinafter "Techniques").

Regarding claim 7, Bell discloses the invention of claim 1.

Bell does not expressly disclose wherein the G.hs protocol is utilized to establish the network connection, however, "Techniques" does disclose this limitation [page 2, "Introduction"].

It would have been obvious to one skilled in the art at the time the invention was made to use the invention as described in Bell regarding claim 1 with the G.hs protocol as described in "Techniques". "Techniques" discloses that the methods are used with DSL connection establishment techniques [page 2, "Introduction"] and that there is a need in the art to analyze line conditions in order to choose the most efficient mode of communication provided by the methods [page 3, 3. Proposals for Required Functionality in G.hs"], which would motivate one

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skilled in the art to combine the teachings of Bell and "Techniques". Therefore, it would have been obvious to achieve the limitations as described in claim 7.

Regarding claim 8, Bell and "Techniques" disclose the invention of claim 7.

Bell does not expressly disclose wherein G.hs signaling would be performed over a set of tones specifically for home networking session establishment, however, "Techniques" does disclose this limitation [page 4, "3.5 Simultaneous User Data Channel"; page 6, "4.1.2 xDSL Bands", paragraph 3 beginning "The Channel Audit Tones frequencies...."].

Claim 8 is rejected under 35 USC 103(a) since the motivations to combine the references put forth regarding claim 7 also applies to claim 8.

Regarding claim 9, Bell and "Techniques" disclose the invention of claim 7.

Bell discloses wherein one digital subscriber loop modem initiates the network connection by signaling with a central office DSL modem and the other digital subscriber loop modem decipher communications but do not participate in the establishment of the network connection. [column 7, lines 12-61; column 9, lines 10-28]

Regarding claim 10, Bell and "Techniques" disclose the invention of claim 9.

Bell discloses wherein a flag signal comprises of a 'no common mode' selection in a mode select message followed by a non-standard information field pertaining to establishing the home networking session [column 7, line 23-column 8, line 38, specifically column 8, lines 12-38].

Regarding claim 12, Bell discloses the invention of claim 1.

Bell does not expressly disclose wherein a digital subscriber loop protocol comprises a G.lite protocol, however, "Techniques" does disclose this limitation [page 2, "Introduction"].



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“Techniques” discloses that G.lite enables DSL connections to operate without the use of splitters [page 4, “3.3 Splitter Probe”], which would motivate one of ordinary skill in the art to combine the teachings of Bell and “Techniques”. Therefore, it would have been obvious to one of ordinary skill at the time the invention was made to combine these references in order to achieve the limitations as described in claim 12.

Regarding claim 13, Bell and “Techniques” disclose the invention of claim 12.

Bell does not expressly disclose wherein a timing signal is provided in absence of a downstream pilot, however, “Techniques” does disclose this limitation [page 9, “4.2.1 Fallback and Error Recovery”, paragraph 2 beginning “If the xTU-R is unable to detect the xTU-C downstream pilot tone...”]

“Techniques” discloses that the invention is used to fallback to legacy protocols and error recovery [page 4, “3.4 Voiceband Fallback” and “3.6 Fallback for pre-G.hs xTU”; page 9, “4.2.1 Fallback and Error Recovery”], which would motivate one of ordinary skill in the art to combine the teachings of Bell and “Techniques”. Therefore, it would have been obvious to achieve the limitations as described in claim 13.

Regarding claim 14, Bell and “Techniques” disclose the invention of claim 13.

Bell discloses wherein a DMT carrier provides a timing signal [column 4, line 50-column 5, line 4; column 6, lines 18-32]

Regarding claim 17, Bell discloses the invention of claim 16 wherein a central office modem addresses a network connection to a particular home network modem [column 5, lines 5-25], however, Bell does not expressly disclose using G.hs.

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“Techniques” discloses G.hs is implemented in a central office modem [page 4, “3.6 Fallback for pre-G.hs xTU”, “3.7 Modularity”, and “3.8 External Controllability”]

Claim 17 is rejected under 35 USC 103(a) since the motivations to combine references put forth regarding claim 7 also apply to claim 17.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6 252 901 A to Mueller et al;

US Patent 6 243 414 B1 to Drucker et al.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C Neurauter whose telephone number is 703-305-4565. The examiner can normally be reached on Mon-Fri 9am-5:30pm Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 703-308-5221. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-746-7240.

gcn  
March 10, 2003

  
**DAVID WILEY**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**